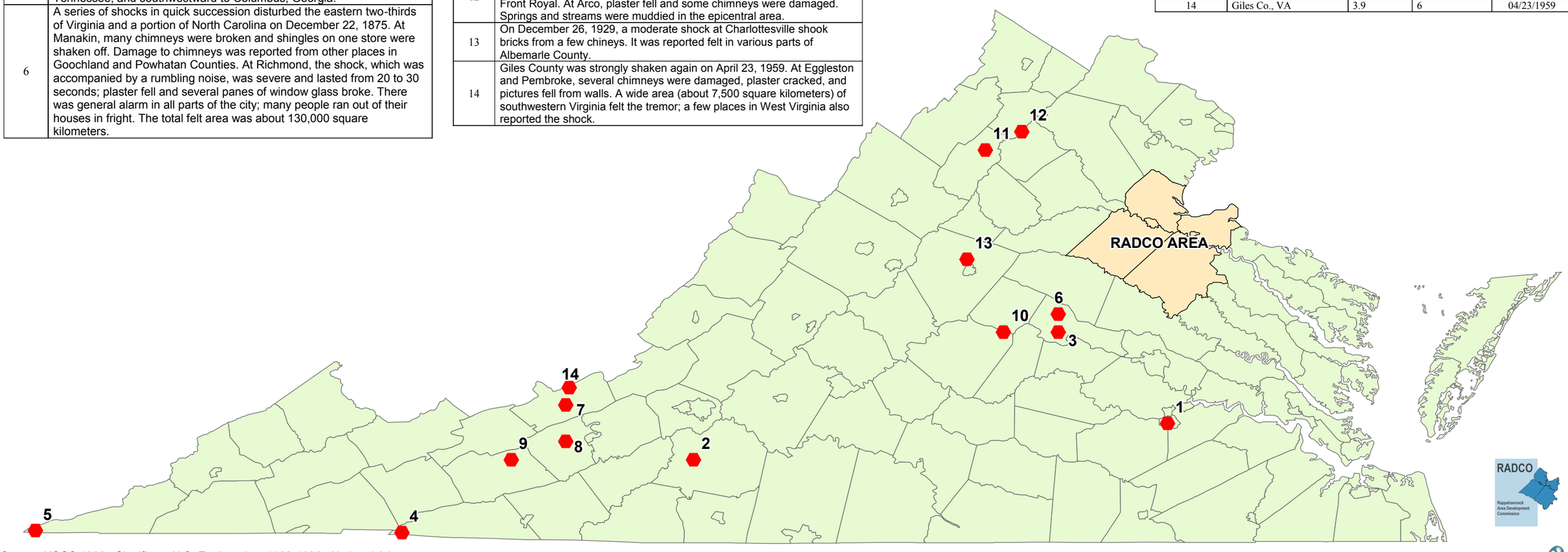
Earthquake Descriptions

ID	Earthquake Description
1	On February 21, 1774, a strong earthquake was felt over much of Virginia and southward into North Carolina. Many houses were moved considerably off their foundations at Petersburg and Blandford. The shock was described as "severe" at Richmond and "small" at Fredericksburg. However, it "terrified the inhabitants greatly." The total felt area covered about 150,000 square kilometers.
2	An earthquake, apparently centered in southwestern Virginia, on March 9, 1828, was reported felt over an area of about 565,000 square kilometers, from Pennsylvania to South Carolina and the Atlantic Coastal Plain to Ohio. Very few accounts of the shock were available from places in Virginia; it was reported that doors and windows rattled. President John Quincy Adams felt this tremor in Washington D.C., and provided a graphic account in his diary. He compared the sensation to the heaving of a ship at sea.
3	The August 27, 1833, earthquake covered a broad felt area from Norfolk to Lexington and from Baltimore, Maryland, to Raleigh, North Carolina - about 135,000 square kilometers. Two miners were killed in the panic the shock caused at Brown's Coal Pits, near Dover Mills, about 30 kilometers from Richmond. At Charlottesville, Fredericksburg, Lynchburg, and Norfold, windows rattled violently, loose objects shook, and walls of buildings were visibly agitated.
4	Another moderately strong, widely felt shock occurred on April 29, 1852. At Buckingham and Wytheville, chimneys were damaged. The felt area extended to Washington D.C., Baltimore, Maryland, and Philadelphia, Pennsylvania, and also included many points in North Carolina - approximately 420,000 square kilometers.
5	A major earthquake struck on August 31, 1861. The epicenter was probably in extreme southwestern Virginia or western North Carolina. At Wilkesboro, North Carolina, bricks were shaken from chimneys. The lack of Virginia reports may perhaps be ascribed to the fact that the Civil War was under way and there was rather heavy fighting in Virginia at the time. This shock affected about 775,000 square kilometers and was felt along the Atlantic coast from Washington, D.C., to Charleston, South Carolina, and westward to Cincinnati, Louisville, and Gallatin, Tennessee, and southwestward to Columbus, Georgia.
6	A series of shocks in quick succession disturbed the eastern two-thirds of Virginia and a portion of North Carolina on December 22, 1875. At Manakin, many chimneys were broken and shingles on one store were shaken off. Damage to chimneys was reported from other places in Goochland and Powhatan Counties. At Richmond, the shock, which was accompanied by a rumbling noise, was severe and lasted from 20 to 30 seconds; plaster fell and several panes of window glass broke. There was general alarm in all parts of the city; many people ran out of their houses in fright. The total felt area was about 130,000 square kilometers.

Earthquake Descriptions (cont.)

ID	Earthquake Description
7, 8	The largest earthquake to originate in Virginia is historic times occurred on May 31, 1897. The epicenter was in Giles County, where on May 3, an earlier tremor at Pulaski, Radford, and Roanoke had caused damage. Loud rumblings were heard in the epicentral region at various times between May 3 and 31. The shock on the latter date was felt from Georgia to Pennsylvania and from the Atlantic Coast westward to Indiana and Kentucky, an area covering about 725,000 square kilometers. It was especially strong at Pearisburg, where the walls of old brick houses were cracked and bricks were thrown from chimney tops. Springs were muddied and a few earth fissures appeared (MM VIII). Chimneys were shaken down at Bedford City, Houston, Pulaski, Radford, and Roanoke. Chimneys were also broken at Raleigh, North Carolina, Bristol and Knoxville, Tennessee, and Bluefied, West Virginia. Minor tremors continued in the epicentral region from time to time until June 6; other disturbances felt on June 28, September 3, and October 21 were probably aftershocks.
9	On February 5, 1898, the residents of Pulaski reported additional chimney damage. People rushed into the streets at Pulsaki and East Radford.
10	An earthquake on February 11, 1907, caused minor damage at Arvonia, Ashby, and Buckingham. At Arvonia, many people became terrified and ran from their houses; although no damage was reported from Columbia, many ran from their homes. The felt area was small, approximately 14,500 square kilometers. Other shocks of lesser intensity occurred in the same area on August 23, 1908, and May 8, 1910.
11	The Shenadoah Valley region was strongly shaken by an earthquake on April 9, 1918. It was called the "most severe earthquake ever experienced" at Luray. Although little damage resulted, people in many places over the northern valley region were greatly alarmed and rushed from their houses. Broken windows were reported at Washington, D.C. The tremor was noticed by President Wilson and his family at the White House; the President's secretary called a newspaper office to learn the cause of the terrifying noise. The felt area extended over 155,000 square kilometers, including parts of Maryland, Pennsylvania, and West Virginia.
12	On September 5, 1919 a major earthquake was felt in the Shenadoah Valley Region. It was strongest in the Blue Ridge Mountains south of Front Royal. At Arco, plaster fell and some chimneys were damaged. Springs and streams were muddied in the epicentral area.
13	On December 26, 1929, a moderate shock at Charlottesville shook bricks from a few chineys. It was reported felt in various parts of Albemarle County.
14	Giles County was strongly shaken again on April 23, 1959. At Eggleston and Pembroke, several chimneys were damaged, plaster cracked, and pictures fell from walls. A wide area (about 7,500 square kilometers) of southwestern Virginia felt the tremor; a few places in West Virginia also reported the shock.



Earthquake ID	Location	Mag	MMI	Date
1	Near Petersburg, VA	4.5	6	02/21/1774
2	Franklin Co., VA	4.6	5	03/10/1828
3	Central VA	4.5	5	08/27/1833
4	Near Wytheville, VA	4.8	6	04/29/1852
5	Extreme Southwest, VA	Unknown	Unknown	08/31/1861
6	Central VA	4.8	7	12/23/1875
7	Giles Co., VA	5.6	8	05/31/1897
8	Southwest VA	4.3	6	05/03/1897
9	Pulaski, VA	4.4	6	02/05/1898
10	Near Arvonia, VA	4.0	6	02/11/1907
11	Luray, VA	4.6	6	04/10/1918
12	Near Front Royal, VA	Unknown	6	09/06/1919
13	Charlottesville, VA	3.7	6	12/26/1929
14	Giles Co., VA	3.9	6	04/23/1959

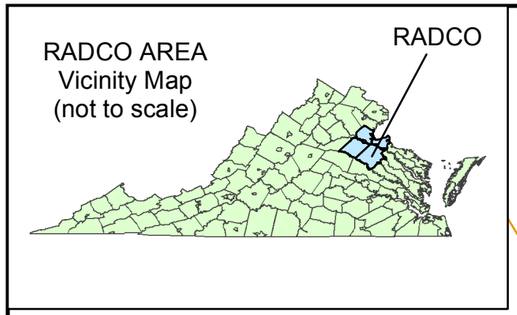
Source: USGS 1999. Significant U.S. Earthquakes 1568-1996. National Atlas. U.S. Geologic Survey. http://nationalatlas.gov/atlasftp.html

Map B-1

Major Earthquakes Within Virginia

RADCO All-Hazards Mitigation Plan

amec



RADCO Historic Hurricane Tracks

YEAR	NAME	PRESSURE (millibars)	WIND SPEED (mph)	CATEGORY
1876	NOTNAMED	985	80	H1
1876	NOTNAMED	987	70	TS
1878	NOTNAMED	0	105	H2
1883	NOTNAMED	0	45	TS
1883	NOTNAMED	0	35	TD
1886	NOTNAMED	0	35	TD
1899	NOTNAMED	0	65	TS
1915	NOTNAMED	0	35	TD
1928	NOTNAMED	0	45	TS
1928	NOTNAMED	1002	45	TS
1929	NOTNAMED	0	40	E
1929	NOTNAMED	0	40	E
1939	NOTNAMED	0	30	TD
1939	NOTNAMED	0	30	TD
1944	NOTNAMED	0	50	TS
1944	NOTNAMED	0	45	TS
1945	NOTNAMED	1012	40	TS
1954	HAZEL	970	90	E
1979	BOB	1010	25	TD
1981	BRET	1006	35	TD

E = Extratropical
H1 = Category 1 Hurricane
H2 = Category 2 Hurricane
TD = Tropical Depression
TS = Tropical Storm

Source: NOAA 2004. Historical North Atlantic Tropical Cyclone Tracks, 1851-2003. National Oceanic and Atmospheric Administration Coastal Services Center. http://www.csc.noaa/hurricanetracks

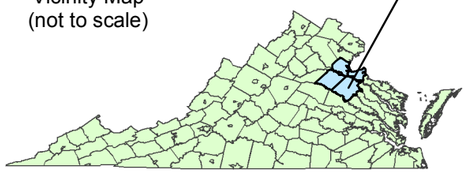
amec

Map B-2

RADCO Regional Historic Hurricane Tracks

RADCO All-Hazards Mitigation Plan

RADCO AREA
Vicinity Map
(not to scale)



Stafford County

City of Fredericksburg

King George County

Spotsylvania County

Port Royal

Bowling Green

Caroline County

Combo-hi - High susceptibility to landsliding and moderate incidence
High - High landslide incidence (more than 15% of the area is involved in landsliding)
Moderate - Moderate landslide incidence (1.5 - 15% of the area is involved in landsliding)
Low - Low landslide incidence (less than 1.5 % of the area is involved in landsliding)

Roads
RADCO Boundaries
Towns

Landslide Risk Zones

Combo-hi
High
Moderate
Low

N

0 6 12 Miles

Notes: These data are highly generalized, owing to the small scale and the scarcity of precise landslide information for much of the country. They are unsuitable for local planning or actual site selection.

Source: USGS Natioanl Atlas
http://nationalatlas.gov/atlasftp.html

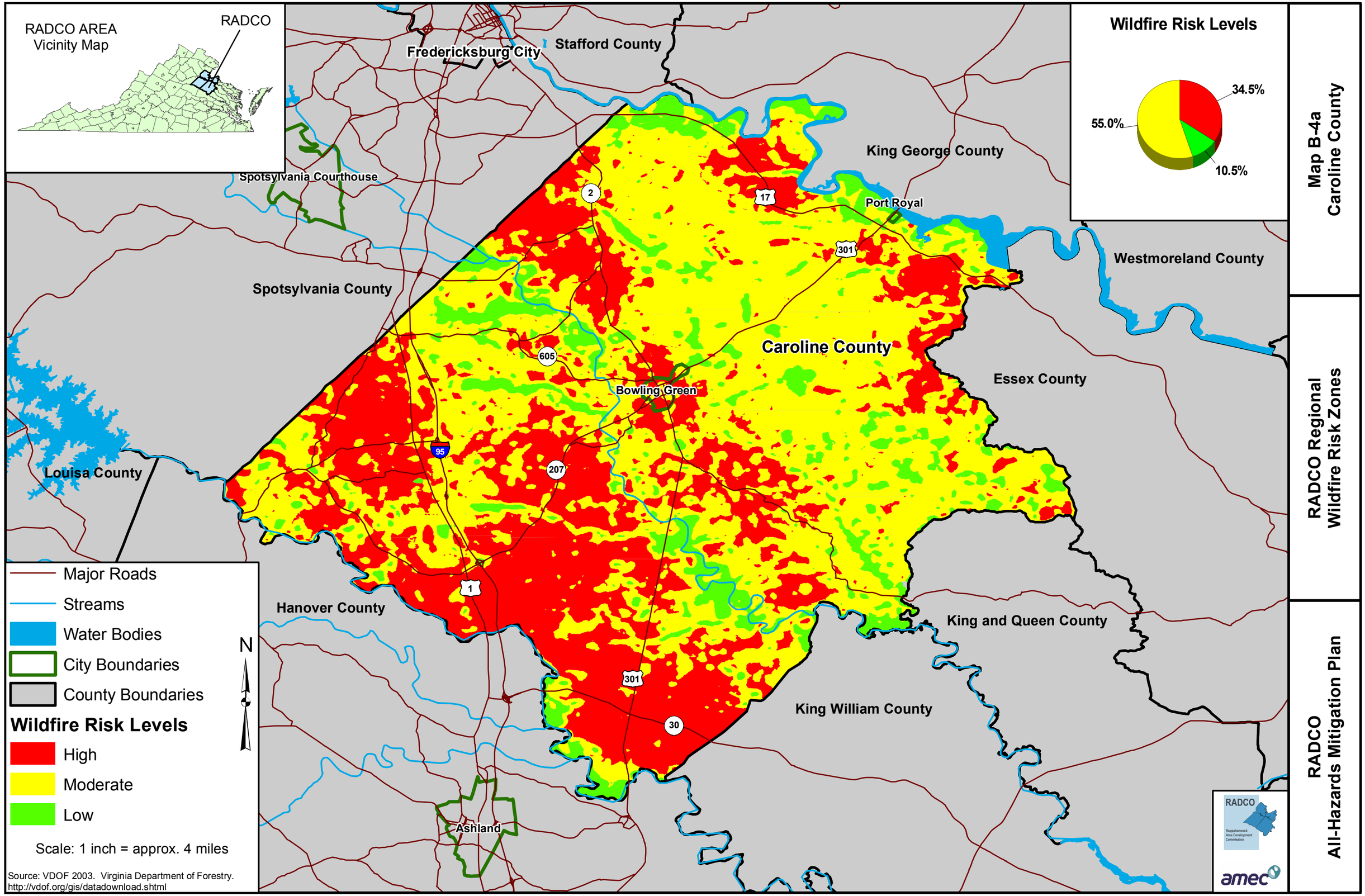
RADCO
Rappahannock Area Development Commission

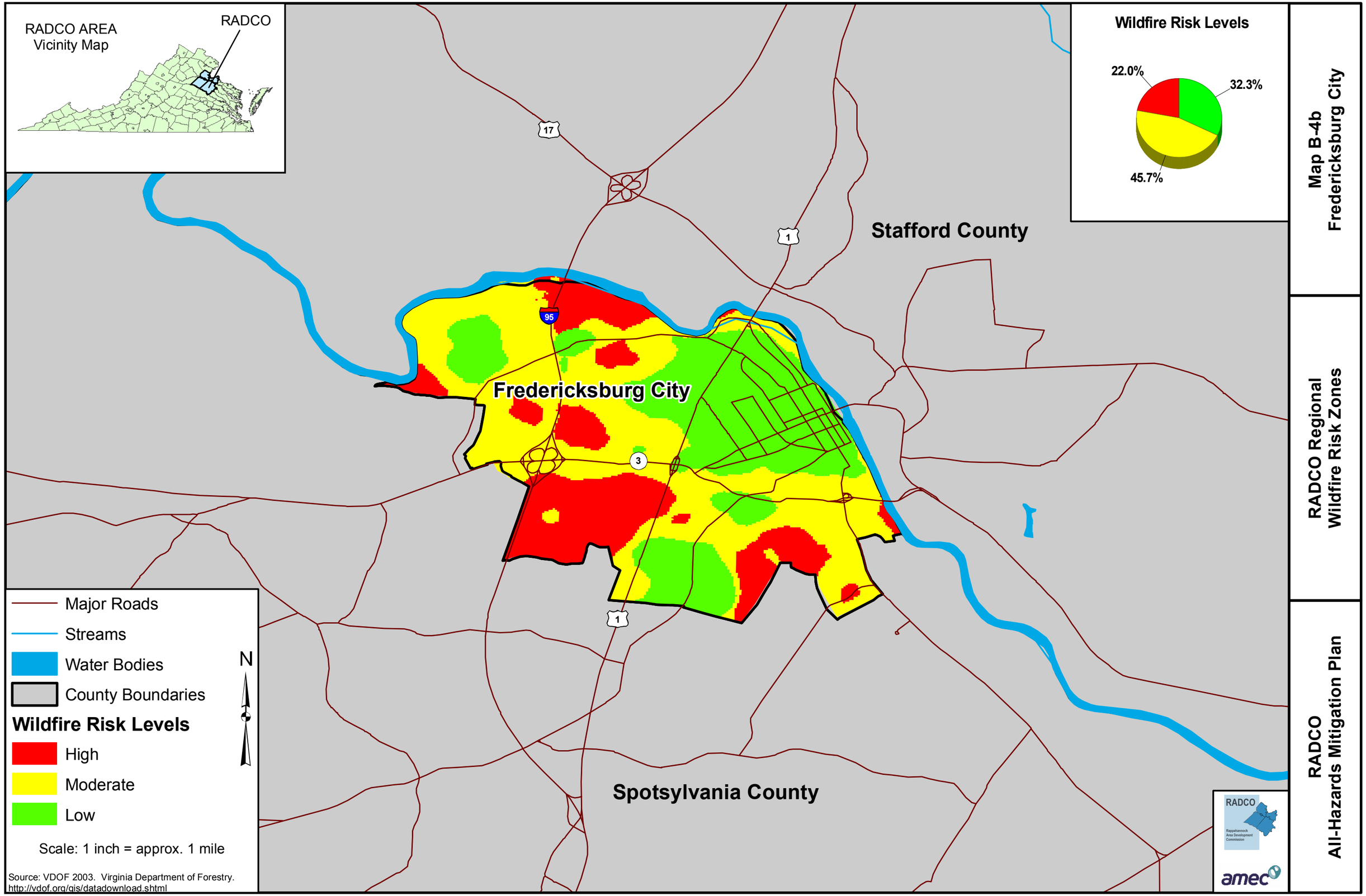
amec

Map B-3

RADCO Regional Landslide Hazard Areas

RADCO All-Hazards Mitigation Plan


RADCO AREA
Vicinity Map
RADCO
Fredericksburg City
Stafford County
King George County
Spotsylvania Courthouse
Spotsylvania County
Port Royal
Westmoreland County
Caroline County
Essex County
Bowling Green
Louisa County
Hanover County
King and Queen County
King William County
Ashland
2
17
301
605
95
207
1
30
Wildfire Risk Levels
34.5%
55.0%
10.5%
Major Roads
Streams
Water Bodies
City Boundaries
County Boundaries
Wildfire Risk Levels
High
Moderate
Low
N
Scale: 1 inch = approx. 4 miles
Source: VDOF 2003. Virginia Department of Forestry.
http://vdof.org/gis/datadownload.shtml
RADCO
Rappahannock Area Development Commission
amec
Map B-4a
Caroline County
RADCO Regional
Wildfire Risk Zones
RADCO
All-Hazards Mitigation Plan



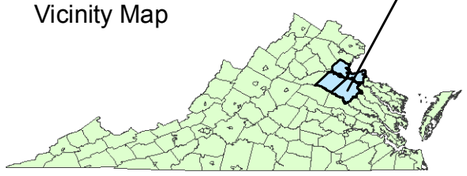
Map B-4b
Fredericksburg City

RADCO Regional
Wildfire Risk Zones

RADCO
All-Hazards Mitigation Plan

RADCO AREA
Vicinity Map

RADCO



Charles County

Stafford County

Fairview Beach

Dahlgren

218

301

King George County

205

Colonial Beach

3

Spotsylvania County

301

3

Port Royal

Caroline County

Westmoreland County

Essex County

Major Roads
Streams
Water Bodies
City Boundaries
County Boundaries

Wildfire Risk Levels

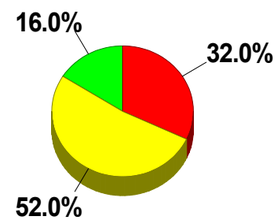
High
Moderate
Low

N

Scale: 1 inch = approx. 2.4 miles

Source: VDOF 2003. Virginia Department of Forestry.
http://vdof.org/gis/datadownload.shtml

Wildfire Risk Levels



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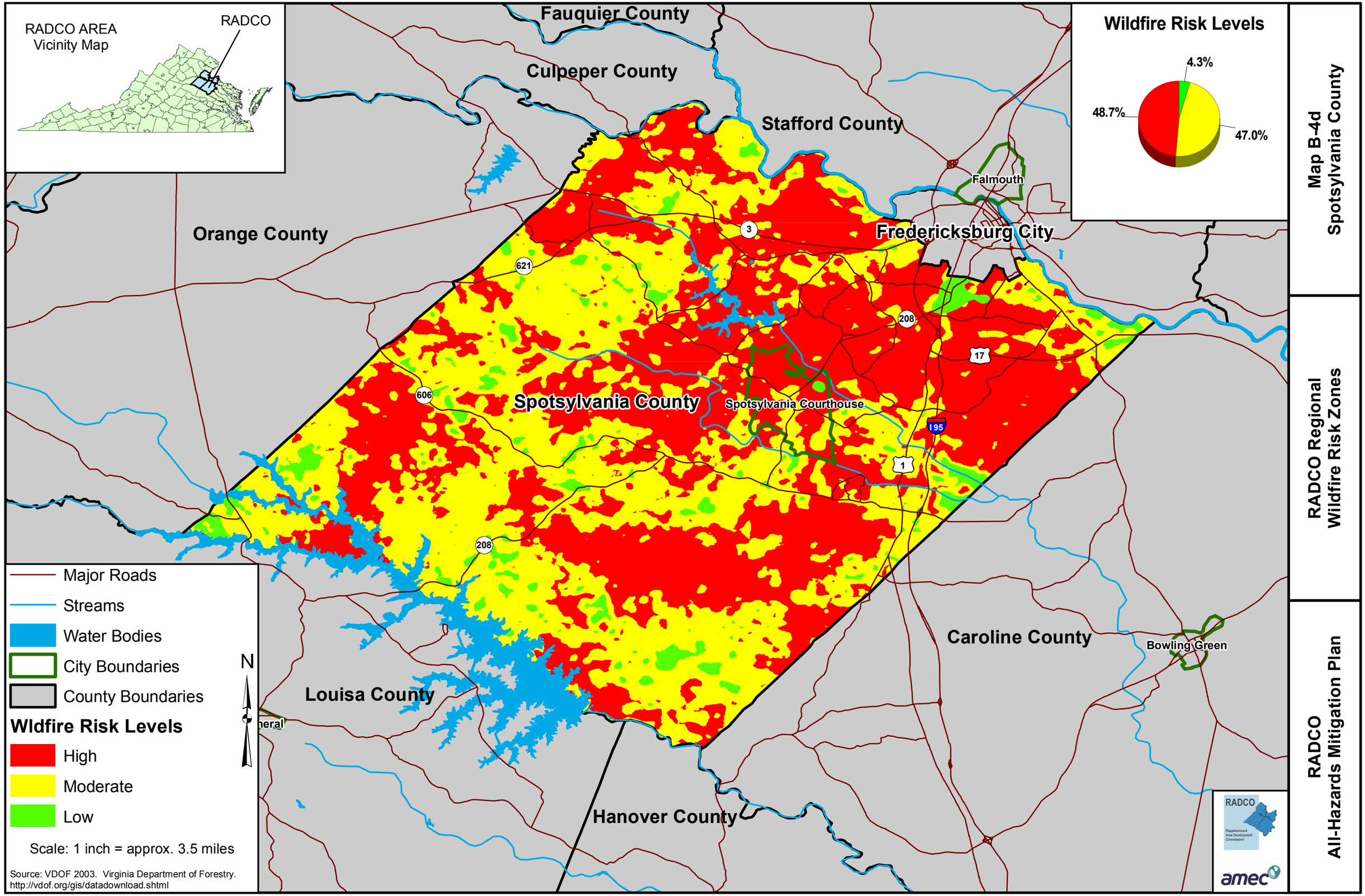
Rappahannock Area Development Commission

amec

Map B-4c
King George County

RADCO Regional Wildfire Risk Zones

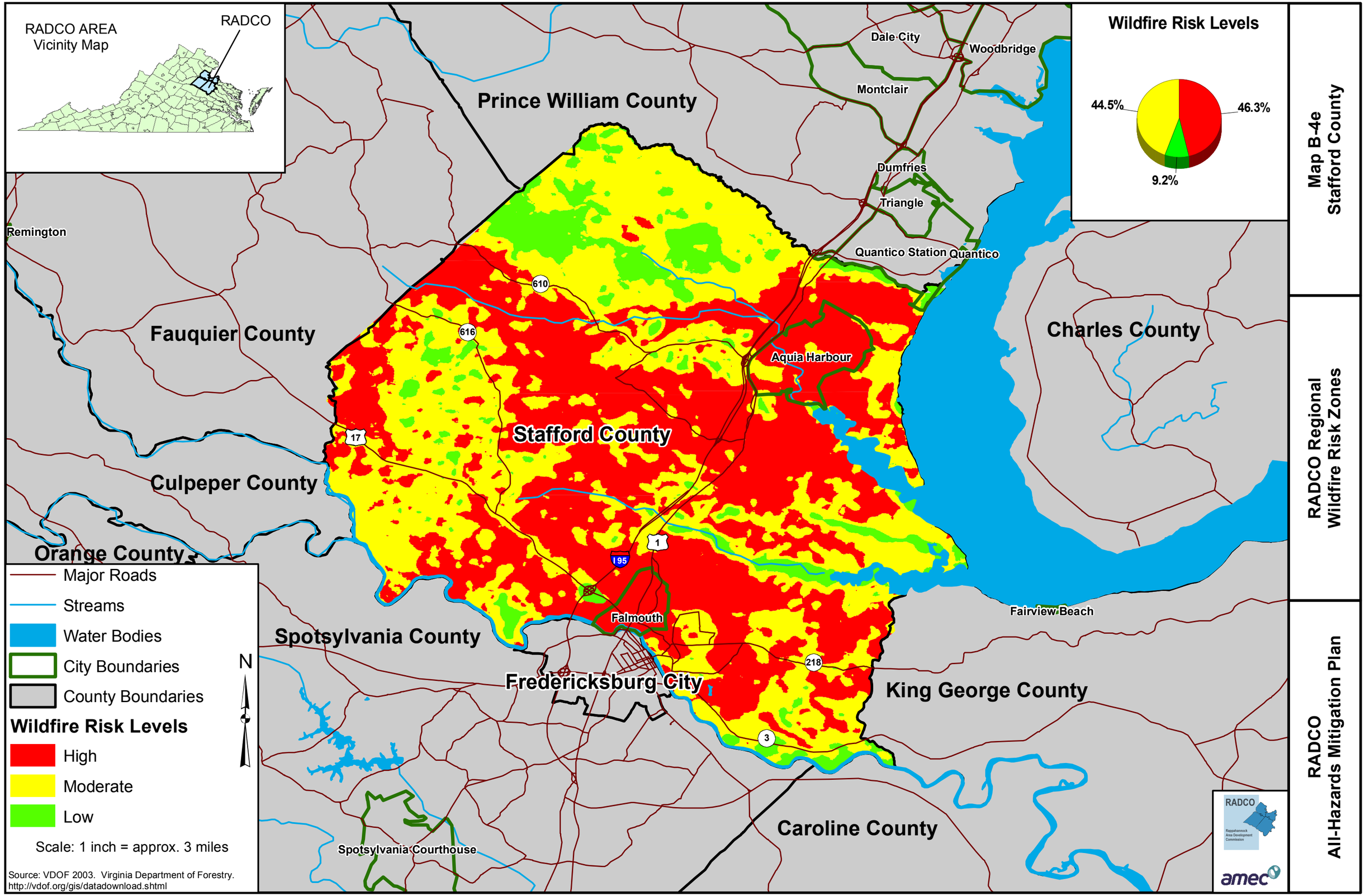
RADCO All-Hazards Mitigation Plan

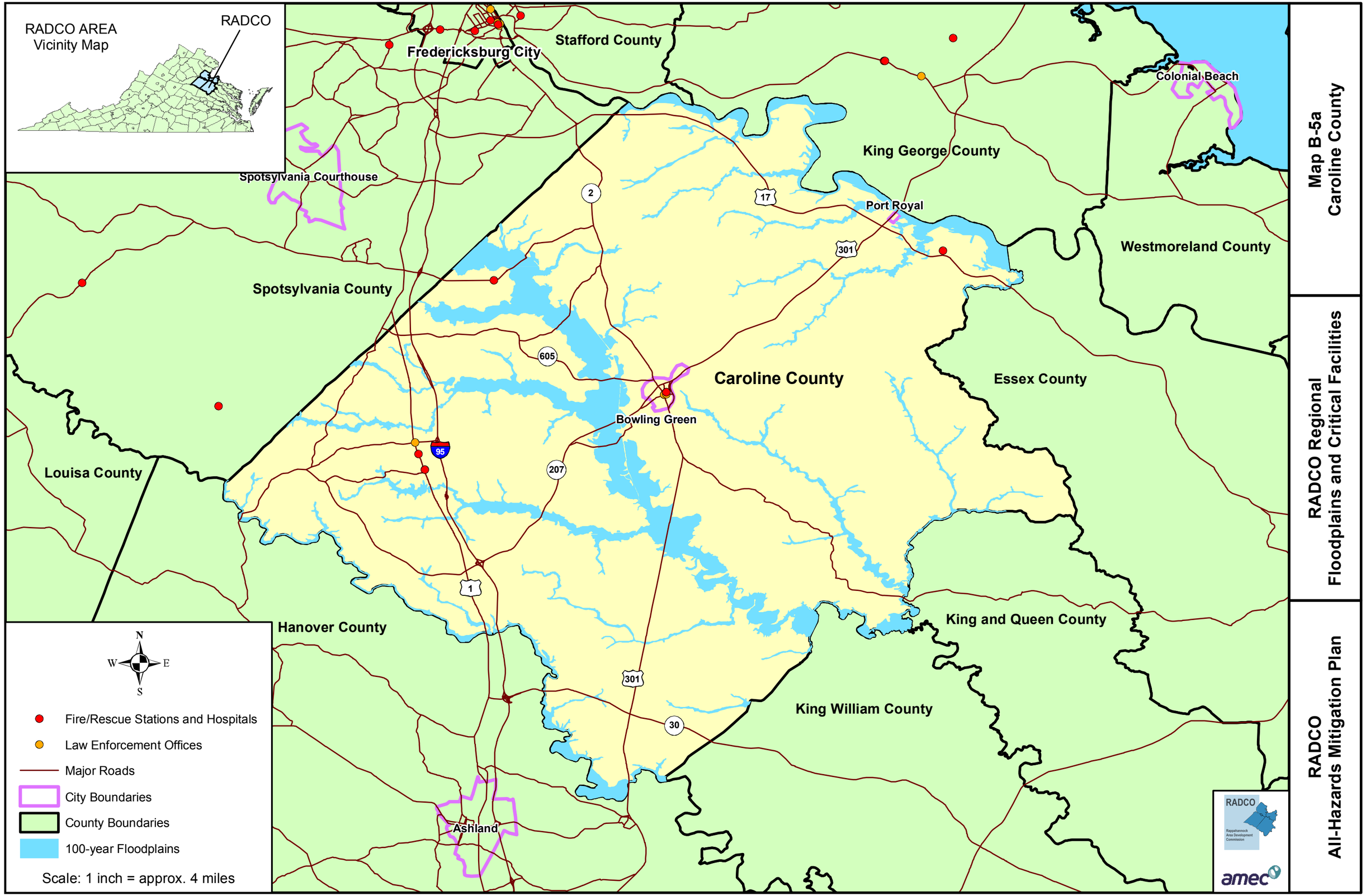


Map B-4d
Spotsylvania County

RADCO Regional
Wildfire Risk Zones

RADCO
All-Hazards Mitigation Plan


RADCO AREA
Vicinity Map
RADCO
Prince William County
Dale City
Woodbridge
Montclair
Dumfries
Triangle
Quantico Station
Quantico
Remington
Fauquier County
610
616
Aquia Harbour
Charles County
Stafford County
17
Culpeper County
Orange County
1
I 95
Falmouth
Fairview Beach
Spotsylvania County
218
Fredericksburg City
King George County
3
Caroline County
Spotsylvania Courthouse
Major Roads
Streams
Water Bodies
City Boundaries
County Boundaries
Wildfire Risk Levels
High
Moderate
Low
Scale: 1 inch = approx. 3 miles
N
Source: VDOF 2003. Virginia Department of Forestry.
http://vdof.org/gis/datadownload.shtml
Wildfire Risk Levels
44.5%
46.3%
9.2%
RADCO
Rappahannock Area Development Commission
amec
Map B-4e
Stafford County
RADCO Regional
Wildfire Risk Zones
RADCO
All-Hazards Mitigation Plan


RADCO AREA
Vicinity Map
RADCO
Fredericksburg City
Stafford County
Colonial Beach
King George County
Spotsylvania Courthouse
Port Royal
Westmoreland County
Spotsylvania County
Caroline County
Essex County
Bowling Green
Louisa County
Hanover County
King and Queen County
King William County
Ashland
2
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301
605
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207
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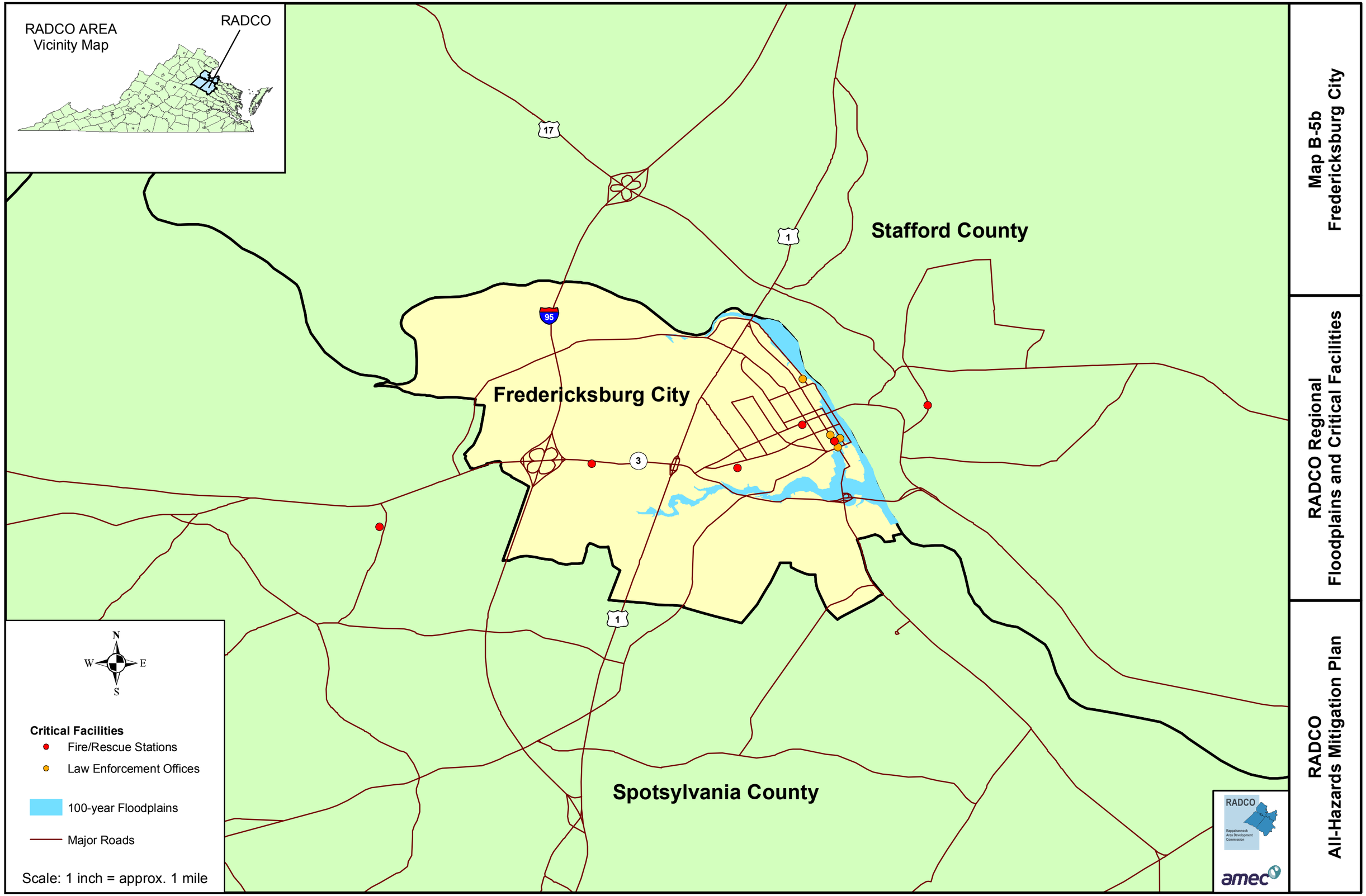
Fire/Rescue Stations and Hospitals
Law Enforcement Offices
Major Roads
City Boundaries
County Boundaries
100-year Floodplains
Scale: 1 inch = approx. 4 miles
RADCO
Rappahannock Area Development Commission
amec
Map B-5a
Caroline County
RADCO Regional
Floodplains and Critical Facilities
RADCO
All-Hazards Mitigation Plan



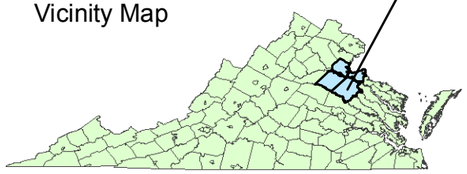
Map B-5b
Fredericksburg City

RADCO Regional
Floodplains and Critical Facilities

RADCO
All-Hazards Mitigation Plan

RADCO AREA
Vicinity Map

RADCO



Charles County

Stafford County

Fairview Beach

Dahlgren

218

301

King George County

205

Colonial Beach

3

Spotsylvania County

301

3

Port Royal

Caroline County

Westmoreland County

Essex County

N
W E
S

- Fire/Rescue Stations and Hospitals
- Law Enforcement Offices
- Major Roads
- City Boundaries
- County Boundaries
- 100-year Floodplains

Scale: 1 inch = approx. 2.4 miles

RADCO

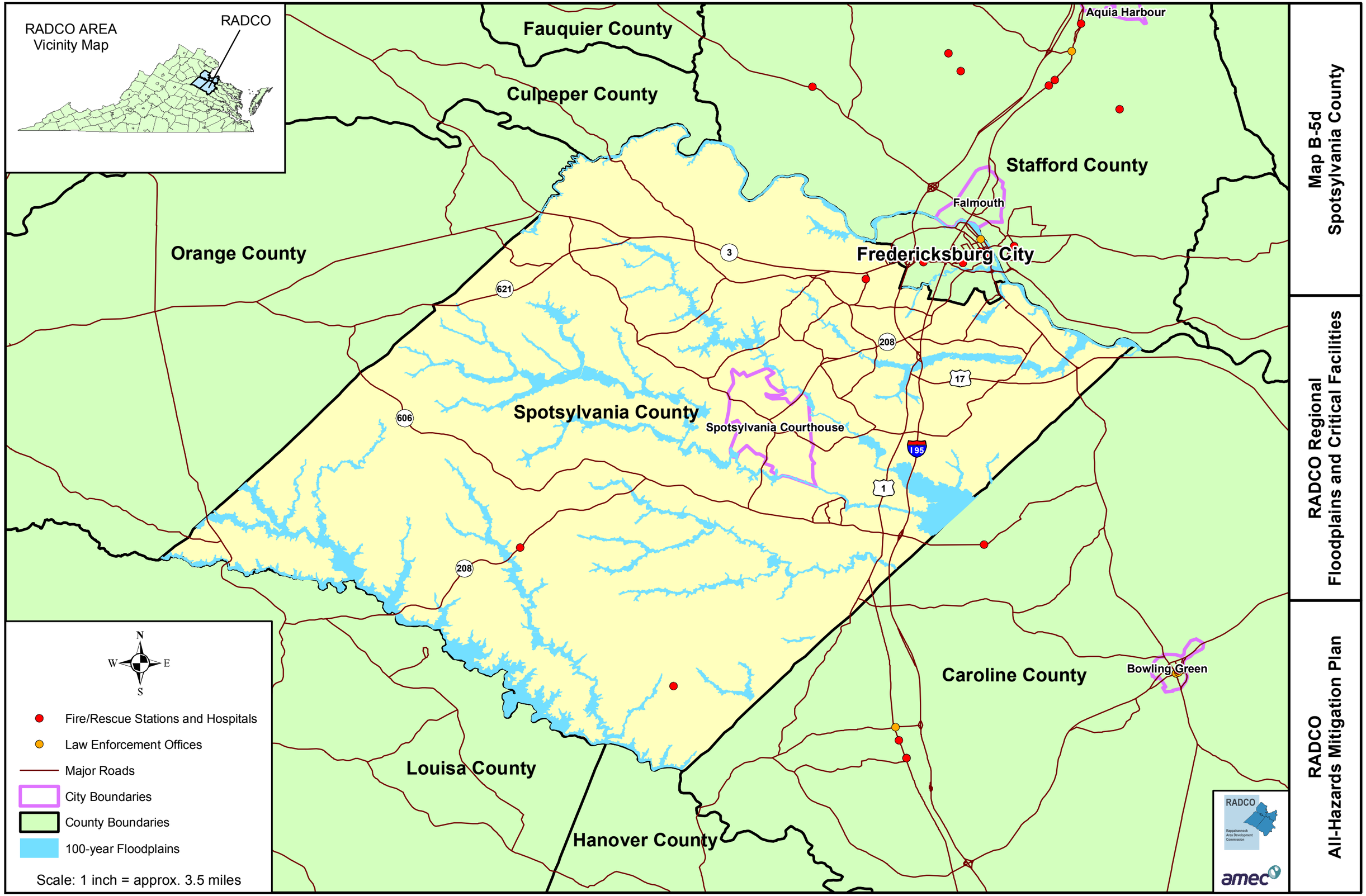
Rappahannock Area Development Commission

amec

Map B-5c
King George County

RADCO Regional
Floodplains and Critical Facilities

RADCO
All-Hazards Mitigation Plan



Map B-5d
Spotsylvania County

RADCO Regional
Floodplains and Critical Facilities

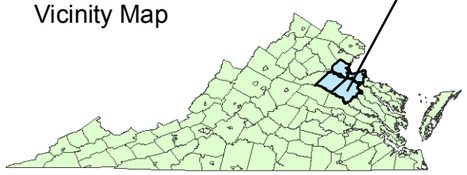
RADCO
All-Hazards Mitigation Plan

Map B-5e
Stafford County

RADCO Regional Floodplains and Critical Facilities

RADCO All-Hazards Mitigation Plan

RADCO AREA
Vicinity Map



Prince William County

Fairfax County

Dale City

Woodbridge

Montclair

Bryans Road

Indian Head

Dumfries

Triangle

Remington

Stafford County

Quantico Station

Quantico

610

616

Fauquier County

Aquia Harbour

Charles County

17

Culpeper County

1

I 95

Orange County

Falmouth

Fairview Beach

Spotsylvania County

218

Fredericksburg City

King George County

3

Caroline County

Spotsylvania Courthouse

N
W E
S

- Fire/Rescue Stations and Hospitals
- Law Enforcement Offices
- Major Roads
- City Boundaries
- County Boundaries
- 100-year Floodplains

Scale: 1 inch = approx. 3 miles

RADCO
Rappahannock Area Development Commission

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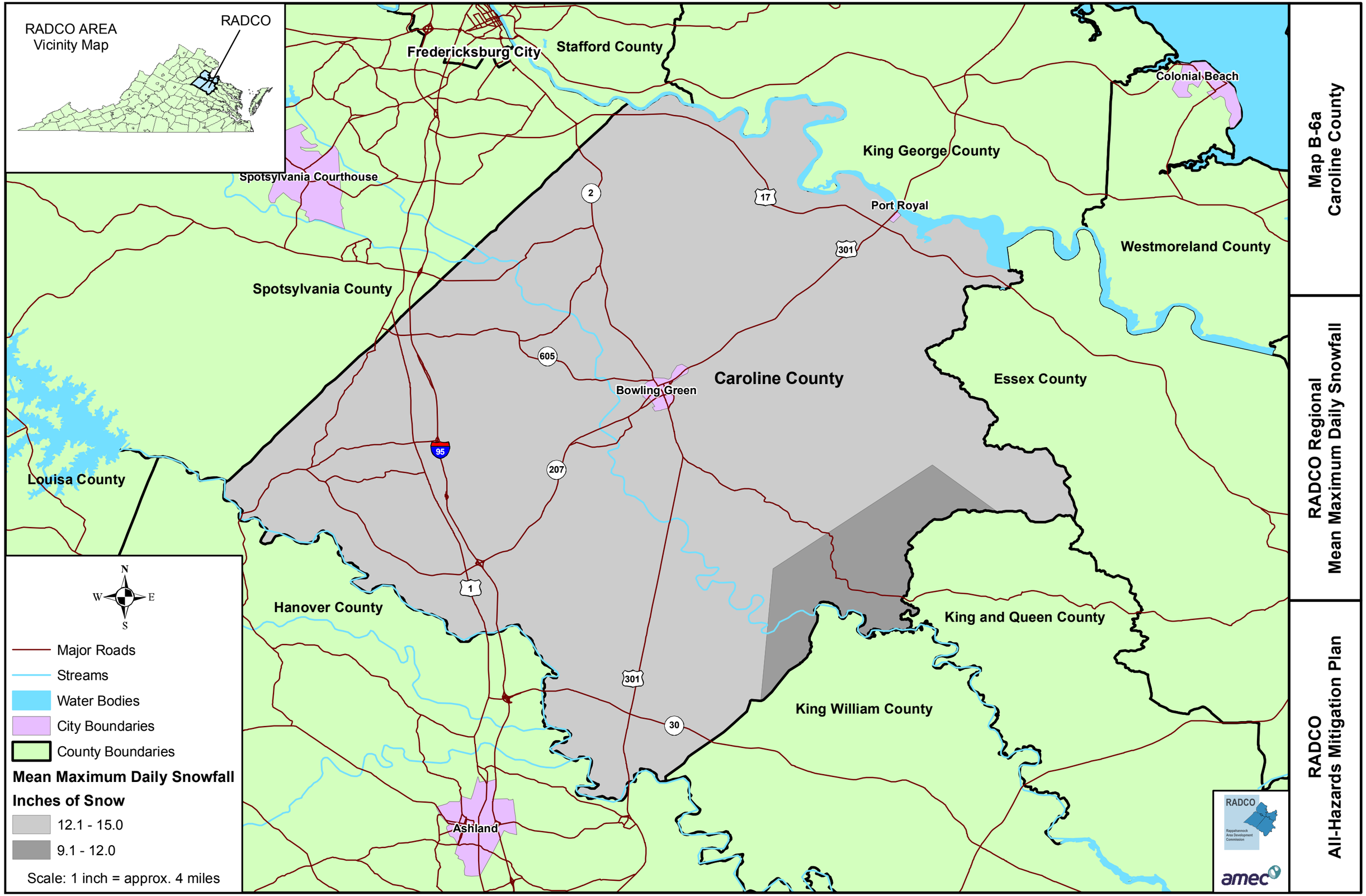
RADCO AREA
Vicinity Map
RADCO
Fredericksburg City
Stafford County
Colonial Beach
King George County
Spotsylvania Courthouse
Port Royal
Westmoreland County
Spotsylvania County
Caroline County
Essex County
Bowling Green
Louisa County
Hanover County
King and Queen County
King William County
Ashland
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17
301
605
95
207
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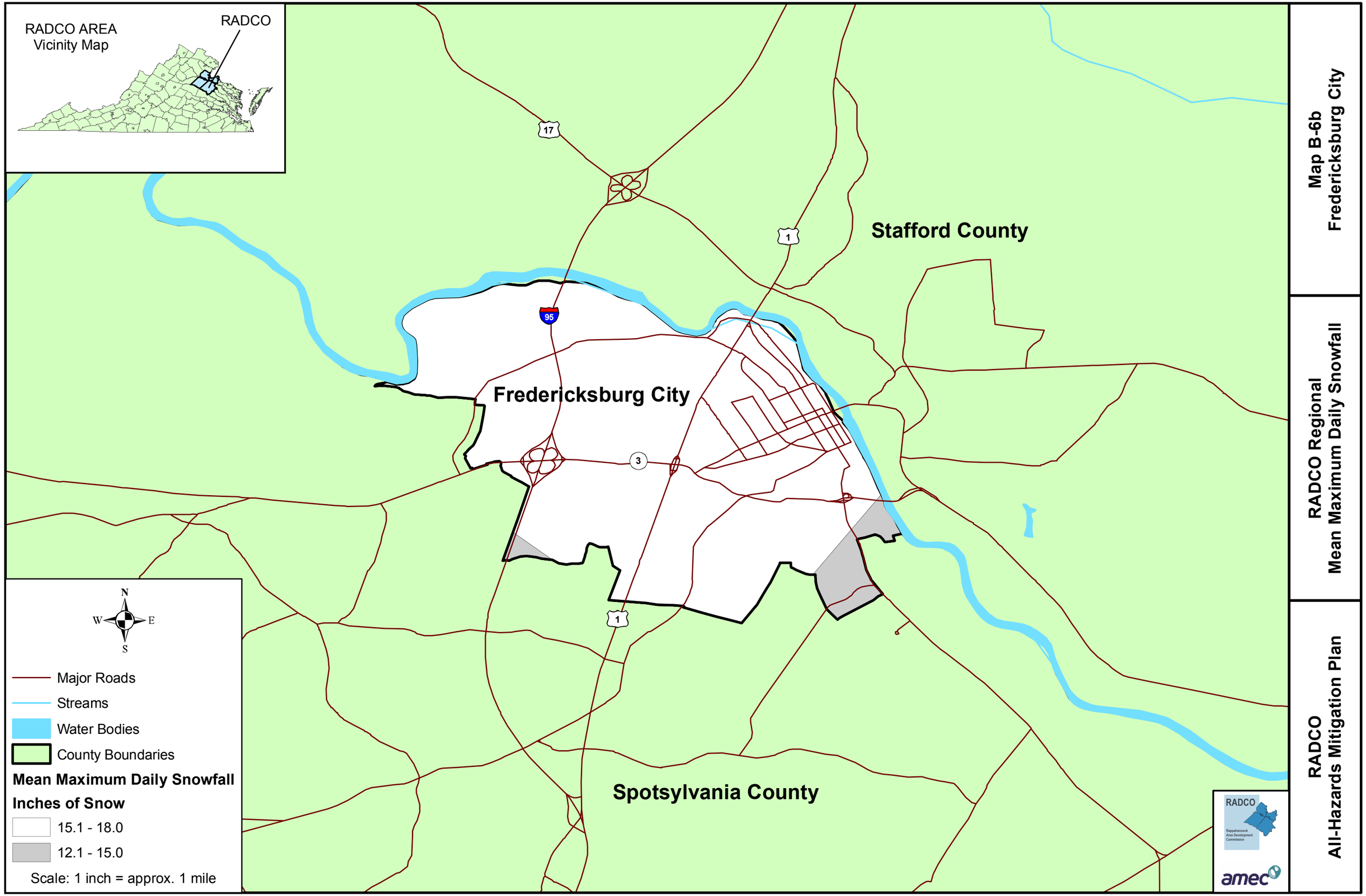
30
N
W
E
S
Major Roads
Streams
Water Bodies
City Boundaries
County Boundaries
Mean Maximum Daily Snowfall
Inches of Snow
12.1 - 15.0
9.1 - 12.0
Scale: 1 inch = approx. 4 miles
RADCO
Rappahannock Area Development Commission
amec
Map B-6a
Caroline County
RADCO Regional
Mean Maximum Daily Snowfall
RADCO
All-Hazards Mitigation Plan



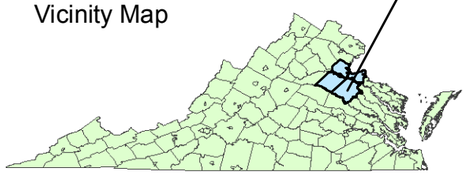
Map B-6b
Fredericksburg City

RADCO Regional
Mean Maximum Daily Snowfall

RADCO
All-Hazards Mitigation Plan

RADCO AREA
Vicinity Map

RADCO



Charles County

Stafford County

Fairview Beach

Dahlgren

218

301

King George County

205

Colonial Beach

3

Spotsylvania County

N
W E
S

Major Roads
Streams
Water Bodies
City Boundaries
County Boundaries

Mean Maximum Daily Snowfall
Inches of Snow
15.1 - 18.0
12.1 - 15.0

Scale: 1 inch = approx. 2.4 miles

301

3

Port Royal

Caroline County

Westmoreland County

Essex County

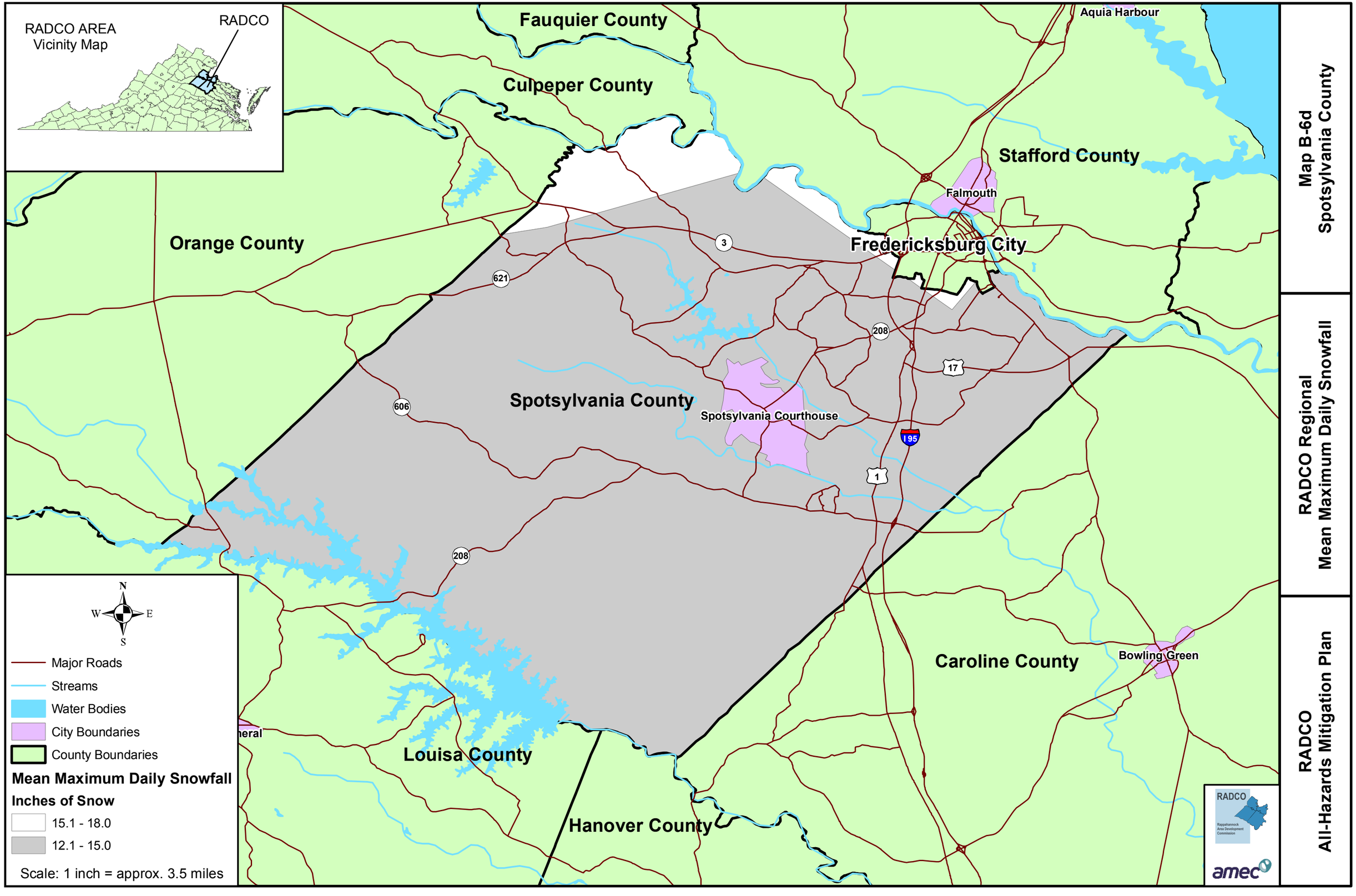
RADCO
Rappahannock Area Development Commission

amec

Map B-6c
King George County

RADCO Regional
Mean Maximum Daily Snowfall

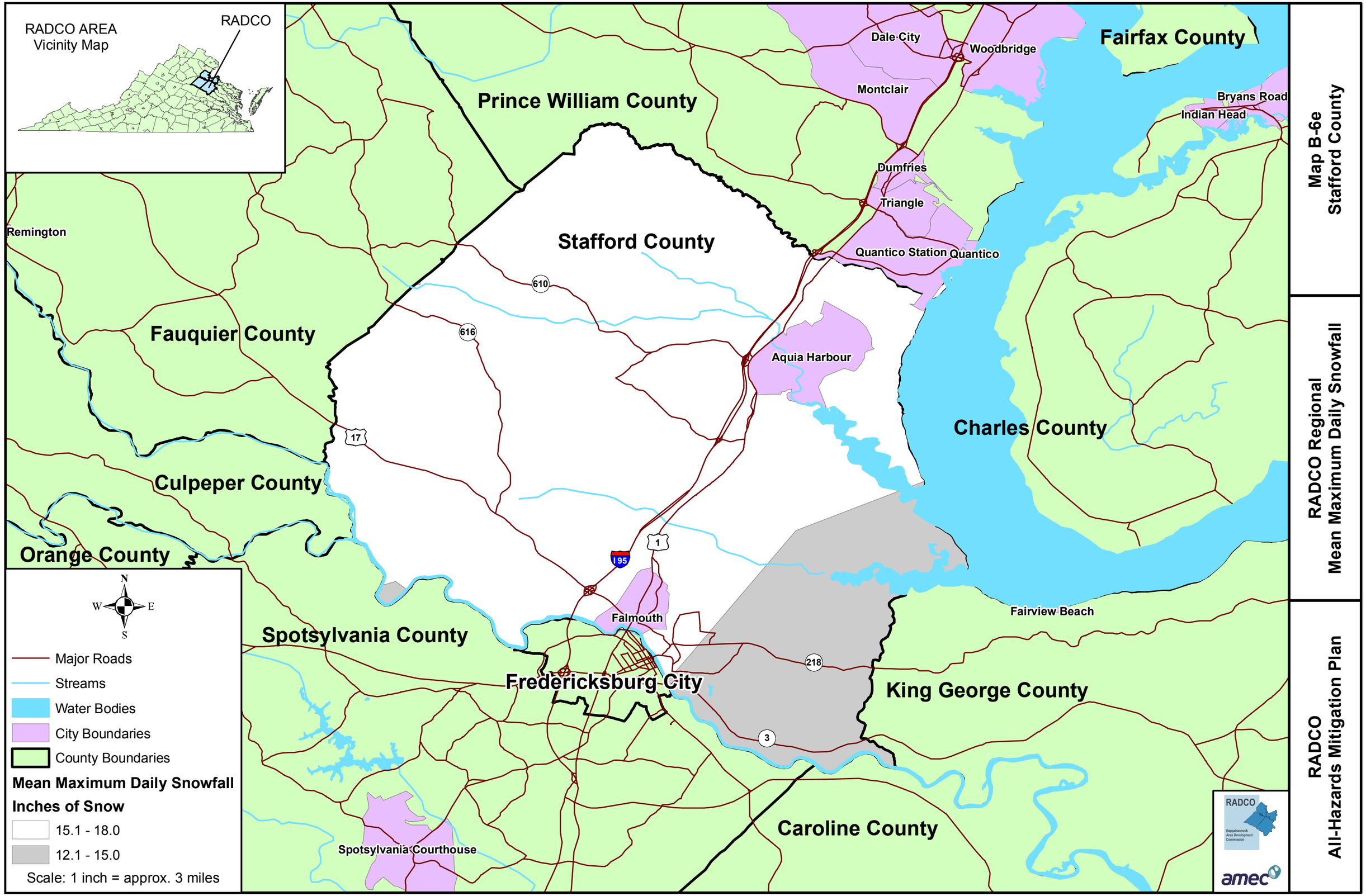
RADCO
All-Hazards Mitigation Plan



Map B-6d
Spotsylvania County

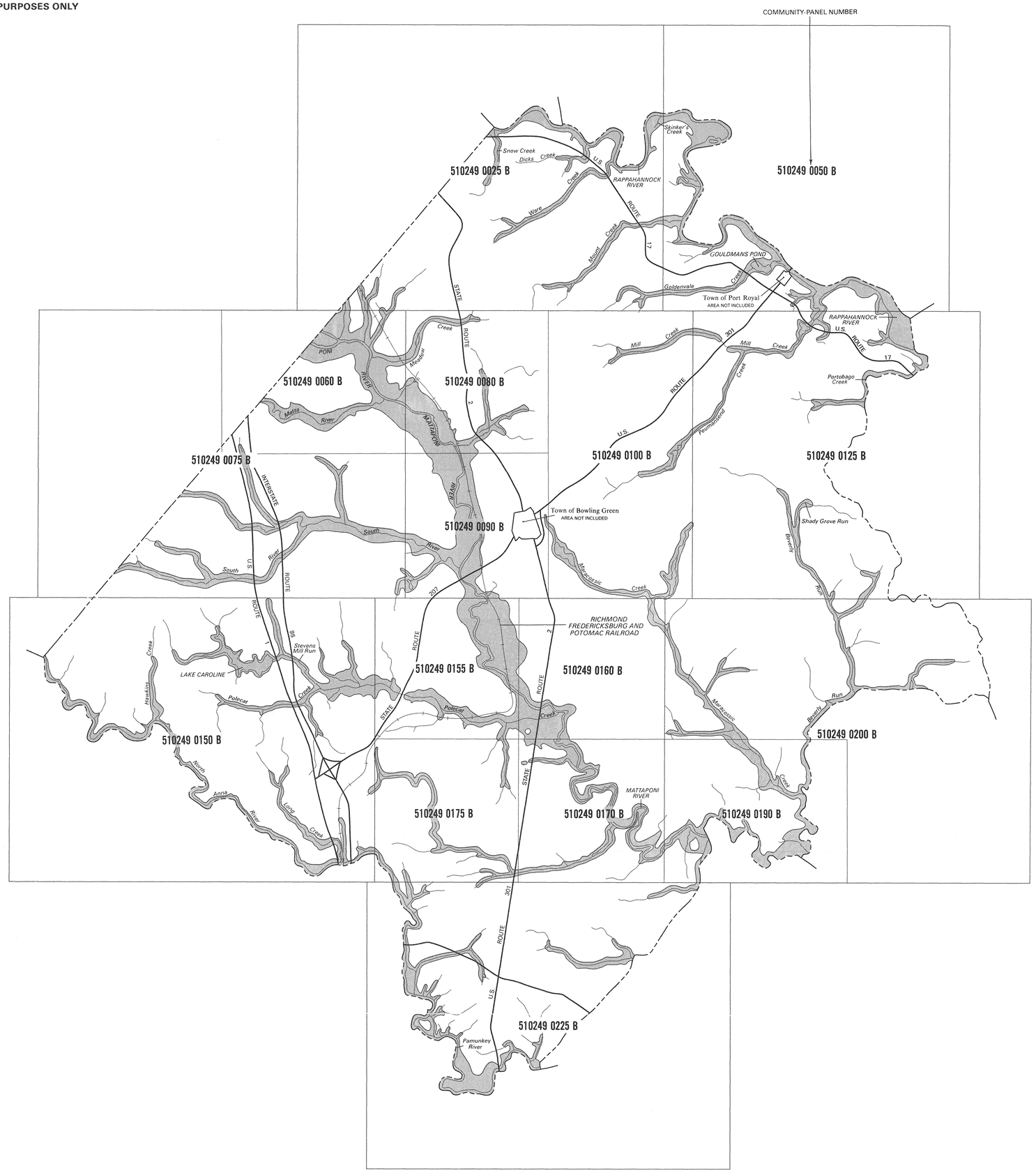
RADCO Regional
Mean Maximum Daily Snowfall

RADCO
All-Hazards Mitigation Plan


RADCO AREA
Vicinity Map
RADCO
Prince William County
Fairfax County
Dale City
Woodbridge
Montclair
Bryans Road
Indian Head
Dumfries
Triangle
Quantico Station
Quantico
Remington
Stafford County
610
616
Fauquier County
Aquia Harbour
Charles County
17
Culpeper County
Orange County
1
I 95
Falmouth
Fairview Beach
Spotsylvania County
218
Fredericksburg City
King George County
3
Caroline County
Spotsylvania Courthouse
N
W
E
S
Major Roads
Streams
Water Bodies
City Boundaries
County Boundaries
Mean Maximum Daily Snowfall
Inches of Snow
15.1 - 18.0
12.1 - 15.0
Scale: 1 inch = approx. 3 miles
RADCO
Rappahannock Area Development Commission
amec
Map B-6e
Stafford County
RADCO Regional
Mean Maximum Daily Snowfall
RADCO
All-Hazards Mitigation Plan

LEGEND

SPECIAL FLOOD HAZARD AREAS;
FOR ORIENTATION PURPOSES ONLY



FLOOD PRONE STREET INDEX

NOTE TO USER

This index provides a list of all streets shown on the Flood Insurance Rate Map (FIRM) that are partially or totally within Special Flood Hazard Areas (SFHAs). **This index should not be used as an authoritative source for determining whether specific streets, properties, or buildings are within an SFHA. The appropriate FIRM panel must be consulted for these purposes.** This index is intended to be used only as a guide for determining which FIRM panel displays the street in question and the relative location of the street on the FIRM panel.

KEY

BAKER STREET 0005 (A2)
street name ..... panel number grid location

NAMED STREETS

MAP REPOSITORY

Planning Department, 109 B. Ennis Street, Bowling Green, Virginia 22427 (Maps available for reference only, not for distribution).

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CAROLINE COUNTY, VIRGINIA
UNINCORPORATED AREAS

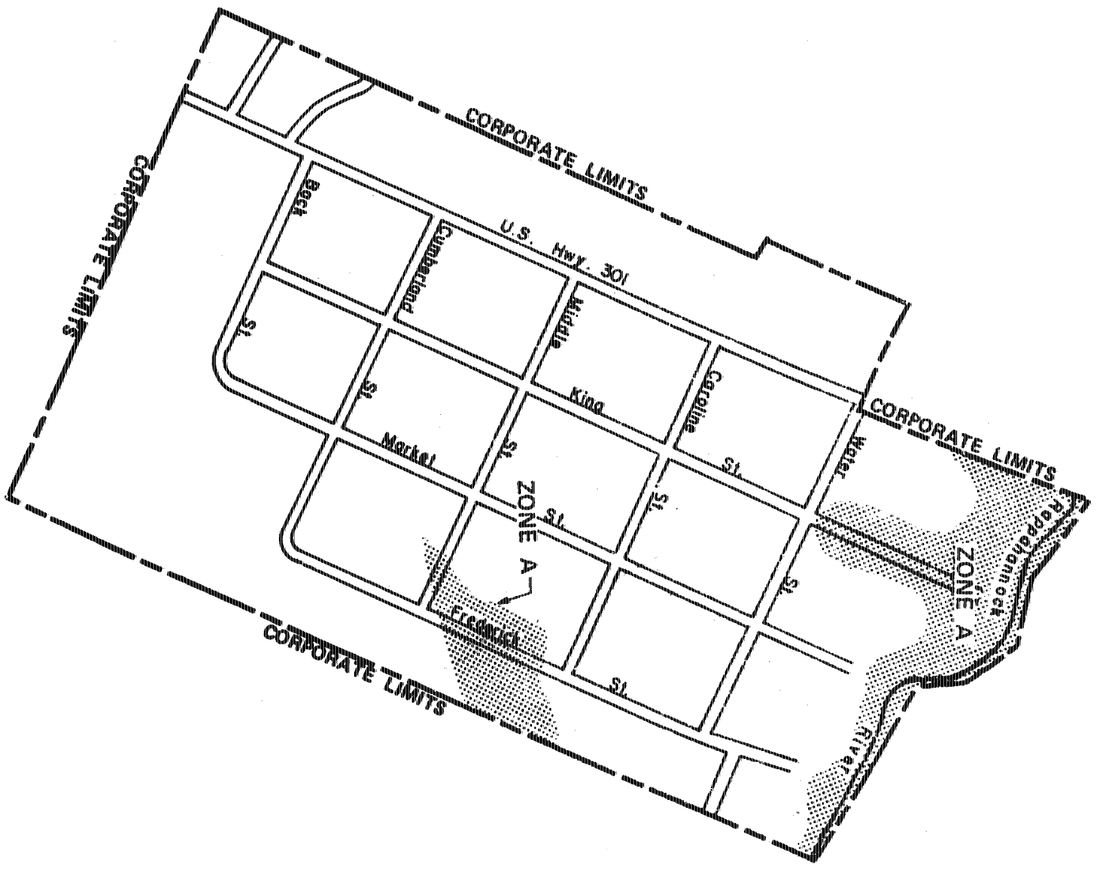
MAP INDEX
and
STREET INDEX

PANELS PRINTED: 25, 50, 60, 75, 80, 90, 100, 125, 150, 155, 160, 170, 175, 190, 200, 225

COMMUNITY-PANEL NUMBERS
510249 0001-0225

EFFECTIVE DATE:
AUGUST 15, 1989

Federal Emergency Management Agency

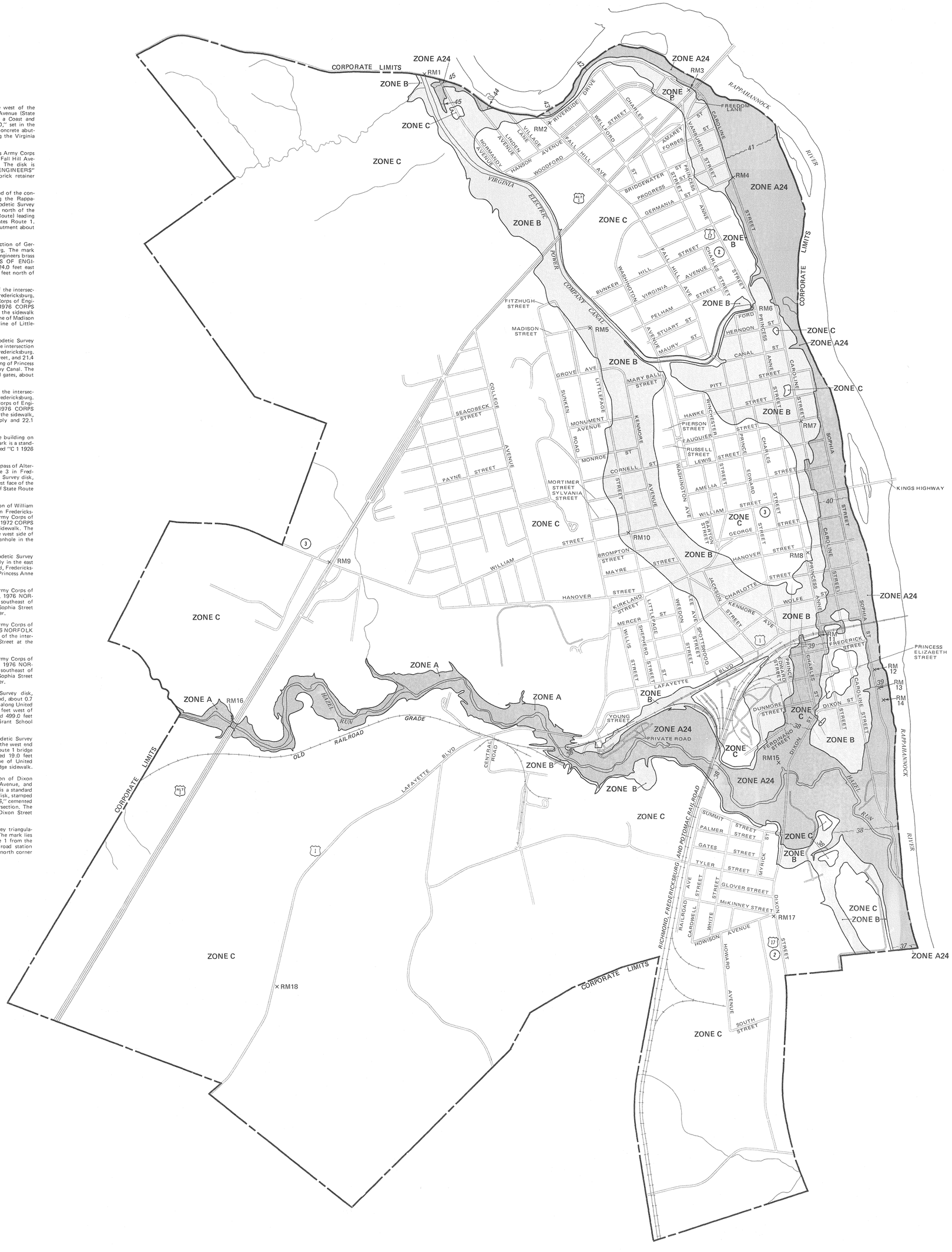


01	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration TOWN OF PORT ROYAL, VA (CAROLINE CO.)	APPROXIMATE SCALE 400 0 400 800 1200 FEET FLOOD HAZARD BOUNDARY MAP EFFECTIVE DATE JULY 22, 1977

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DESCRIPTION OF LOCATION
RM 1*	58.071	The bench mark is located about 0.45 mile west of the intersection of Riverside Drive and Fall Hill Avenue (State Route 639) in Fredericksburg. The mark is a Coast and Geodetic Survey disk, stamped "W 387 1960," set in the top of the north end of the east stone and concrete abutment of the State Route 639 bridge spanning the Virginia Electric Power Company Canal.
RM 2	58.87	The reference mark is a standard United States Army Corps of Engineers brass disk at the intersection of Fall Hill Avenue and Riverside Drive in Fredericksburg. The disk is stamped "F.I.A. - FRED-6, 1976 CORPS OF ENGINEERS" and is set flush with the sidewalk, near a brick retainer wall.
RM 3	53.399	The bench mark is located at the southwest end of the concrete United States Route 1 bridge crossing the Rappahannock River. The mark is a Coast and Geodetic Survey disk, stamped "V 387 1960," set 0.05 mile north of the junction of United States Route 1 (Business Route) leading southeast and Alternate (Bypass) United States Route 1. The disk is set in the top of the southwest abutment about level with the bridge sidewalk.
RM 4	39.57	The reference mark is located at the intersection of Germaina and Caroline Streets in Fredericksburg. The mark is a standard United States Army Corps of Engineers brass disk, stamped "F.I.A.-FRED-5, 1976 CORPS OF ENGINEERS." The disk is set in a concrete pad 24.0 feet east of the centerline of Caroline Street and 19.0 feet north of a power pole.
RM 5	47.57	The reference mark is on the south corner of the intersection of Madison and Little Page Streets in Fredericksburg. The mark is a standard United States Army Corps of Engineers brass disk, stamped "F.I.A.-FRED-4, 1976 CORPS OF ENGINEERS." The disk is set flush with the sidewalk approximately 20 feet southeast of the centerline of Madison Street and 20 feet southwest of the centerline of Littlepage Street.
RM 6	50.564	The bench mark is a standard Coast and Geodetic Survey disk, stamped "AA 232 1941," located near the intersection of Princess Anne Street and Ford Street in Fredericksburg. The disk is located 46.0 feet north of Ford Street, and 21.4 feet west of Princess Anne Street, at the crossing of Princess Anne over the Virginia Electric Power Company Canal. The disk is set in the concrete floor over the canal gates, about level with Princess Anne Street.
RM 7	44.39	The reference mark is on the east corner of the intersection of Caroline and Fauquier Streets in Fredericksburg. The mark is a standard United States Army Corps of Engineers brass disk, stamped "F.I.A.-FRED-3, 1976 CORPS OF ENGINEERS." The disk is set flush with the sidewalk, 14.0 feet west of the corner of Pickers Supply and 22.1 feet south of the centerline of Fauquier Street.
RM 8	59.682	The bench mark is located at the Post Office building on Princess Anne Street in Fredericksburg. The mark is a standard United States Geological Survey disk, stamped "C 1 1926 59.764."
RM 9	119.314	The bench mark is located at the concrete overpass of Alternate United States Route 1 over State Route 3 in Fredericksburg. The mark is a Coast and Geodetic Survey disk, stamped "Z 397 1960," set vertically in the west face of the bridge's north pier. The disk is 4.9 feet north of State Route 3, and 2.1 feet above ground level.
RM 10	49.30	The reference mark is located at the intersection of William Street (State Route 3) and Littlepage Street in Fredericksburg. The mark is a standard United States Army Corps of Engineers brass disk, stamped "F.I.A.-FRED 2, 1972 CORPS OF ENGINEERS," set flush into a cement sidewalk. The disk is 9.5 feet south of a fire hydrant on the west side of Little Page Street, and 37.5 feet west of a manhole in the intersection.
RM 11	42.844	The bench mark is a standard Coast and Geodetic Survey disk, stamped "Z46 1934 42.933," set vertically in the east face of the west concrete wall of the Richmond, Fredericksburg, and Potomac Railroad overpass spanning Princess Anne Street.
RM 12	16.282	The bench mark is a standard United States Army Corps of Engineers disk, stamped "TIDAL BM 3 FHB, 1976 NORFOLK DISTRICT," located about 0.16 mile southeast of the intersection of Lafayette Boulevard and Sophia Street at the Public Landing on the Rappahannock River.
RM 13	12.728	The bench mark is a standard United States Army Corps of Engineers disk, stamped "Tidal BM2 FHB, 1976 NORFOLK DISTRICT," located about 0.21 mile southeast of the intersection of Lafayette Boulevard and Sophia Street at the Public Landing on the Rappahannock River.
RM 14	10.315	The bench mark is a standard United States Army Corps of Engineers disk, stamped "TIDAL BM 1 FHB, 1976 NORFOLK DISTRICT," located about 0.25 mile southeast of the intersection of Lafayette Boulevard and Sophia Street at the Public Landing on the Rappahannock River.
RM 15	12.825	The bench mark is a Coast and Geodetic Survey disk, stamped "A 463 1971," located in a playground, about 0.7 mile south of the Post Office in Fredericksburg along United States Route 17. The mark is located 166.0 feet west of the centerline of United States Route 17, and 499.0 feet south of the southwest corner of Walker Grant School (most easterly one of the school buildings).
RM 16	87.303	The bench mark is a standard Coast and Geodetic Survey disk, stamped "A388 1960," set in the top of the west end of the north abutment of the United States Route 1 bridge spanning Hazel Run Creek. The disk is located 19.0 feet west of the centerline of the southbound lane of United States Route 1, and about level with the bridge sidewalk.
RM 17	70.74	The bench mark is located at the intersection of Dixon Street (United States Route 17), Howison Avenue, and McKenny Street in Fredericksburg. The mark is a standard United States Army Corps of Engineers brass disk, stamped "F.I.A. FRED-1, 1976 CORPS OF ENGINEERS," cemented flush into the southwest sidewalk at the intersection. The disk is 33.0 feet west of the centerline of Dixon Street (United States Route 1).
RM 18	242.811	The bench mark is a Coast and Geodetic Survey triangulation station disk, stamped "ENNIS 2 1959." The mark lies 2.2 miles southwest along United States Route 1 from the Richmond, Fredericksburg, and Potomac Railroad station at Fredericksburg, about 69 feet north of the north corner of an East Coast Service Station.

[1]National Geodetic Vertical Datum of 1929.
*Located Outside Corporate Limits.



KEY TO MAP

500-Year Flood Boundary	ZONE B
100-Year Flood Boundary	ZONE A1 DATE / ZONE A5 DATE
Zone Designations* With Date of Identification e.g., 12/2/74	
100-Year Flood Boundary	ZONE B
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
River Mile	• M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

INITIAL IDENTIFICATION:
JUNE 21, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
OCTOBER 31, 1975

FLOOD INSURANCE RATE MAP EFFECTIVE:
JULY 2, 1979

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620, or (800) 424-8872.

APPROXIMATE SCALE
800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
FREDERICKSBURG, VIRGINIA
INDEPENDENT CITY

(ONLY PANEL PRINTED)

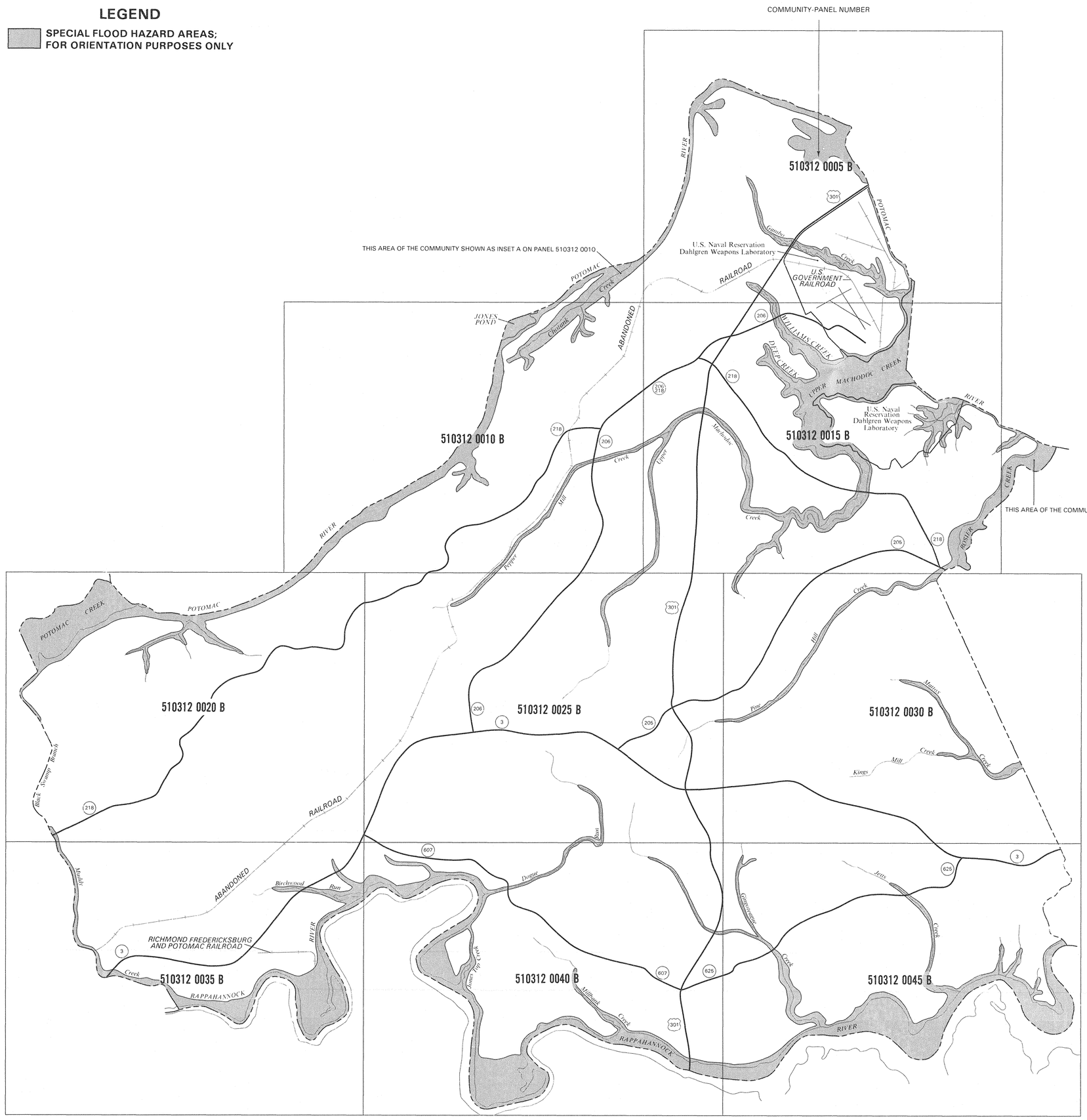
COMMUNITY-PANEL NUMBER
510065 0005 B

EFFECTIVE DATE:
JULY 2, 1979

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

LEGEND

SPECIAL FLOOD HAZARD AREAS; FOR ORIENTATION PURPOSES ONLY



FLOOD PRONE STREET INDEX

NOTE TO USER

This index provides a list of all streets shown on the Flood Insurance Rate Map (FIRM) that are partially or totally within Special Flood Hazard Areas (SFHAs). **This index should not be used as an authoritative source for determining whether specific streets, properties, or buildings are within an SFHA. The appropriate FIRM panel must be consulted for these purposes.** This index is intended to be used only as a guide for determining which FIRM panel displays the street in question and the relative location of the street on the FIRM panel.

KEY

BAKER STREET 0005 (A2)

street name ..... panel number (grid location)

NAMED STREETS

MAP REPOSITORY

County Administrators Office, King George, Virginia, 22485 (Maps available for reference only, not for distribution).

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

KING GEORGE COUNTY, VIRGINIA
UNINCORPORATED AREAS

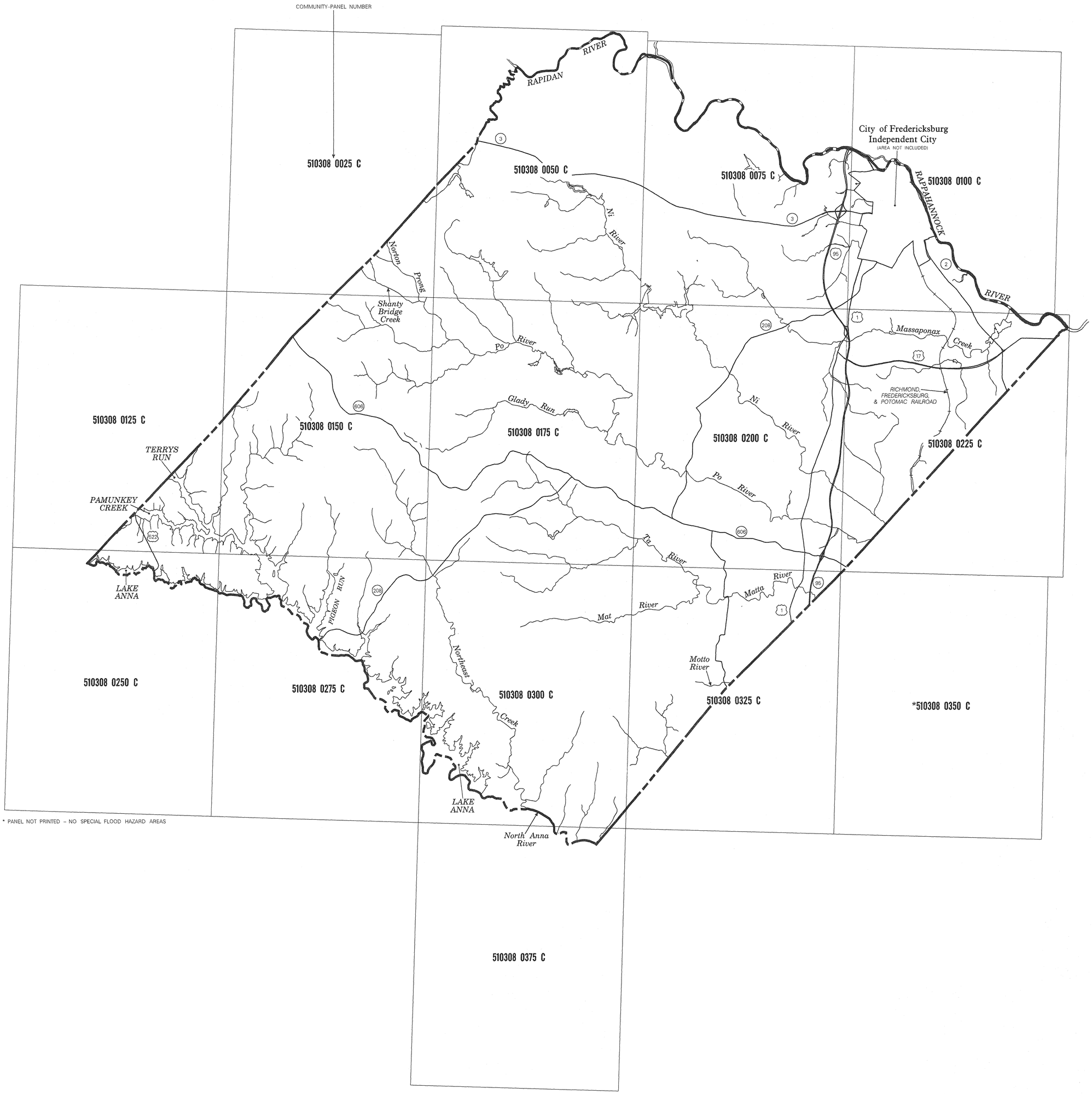
MAP INDEX and STREET INDEX

PANELS PRINTED: 5, 10, 15, 20, 25, 30, 35, 40, 45

COMMUNITY-PANEL NUMBERS
510312 0001-0045

EFFECTIVE DATE:
DECEMBER 15, 1990

Federal Emergency Management Agency



* PANEL NOT PRINTED – NO SPECIAL FLOOD HAZARD AREAS

MAP REPOSITORY

Spotsylvania Environmental Engineering Office, 9104 Courthouse Road, Spotsylvania, Virginia 22553 (Maps available for reference only, not for distribution.)

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

SPOTSYLVANIA COUNTY, VIRGINIA
(UNINCORPORATED AREAS)

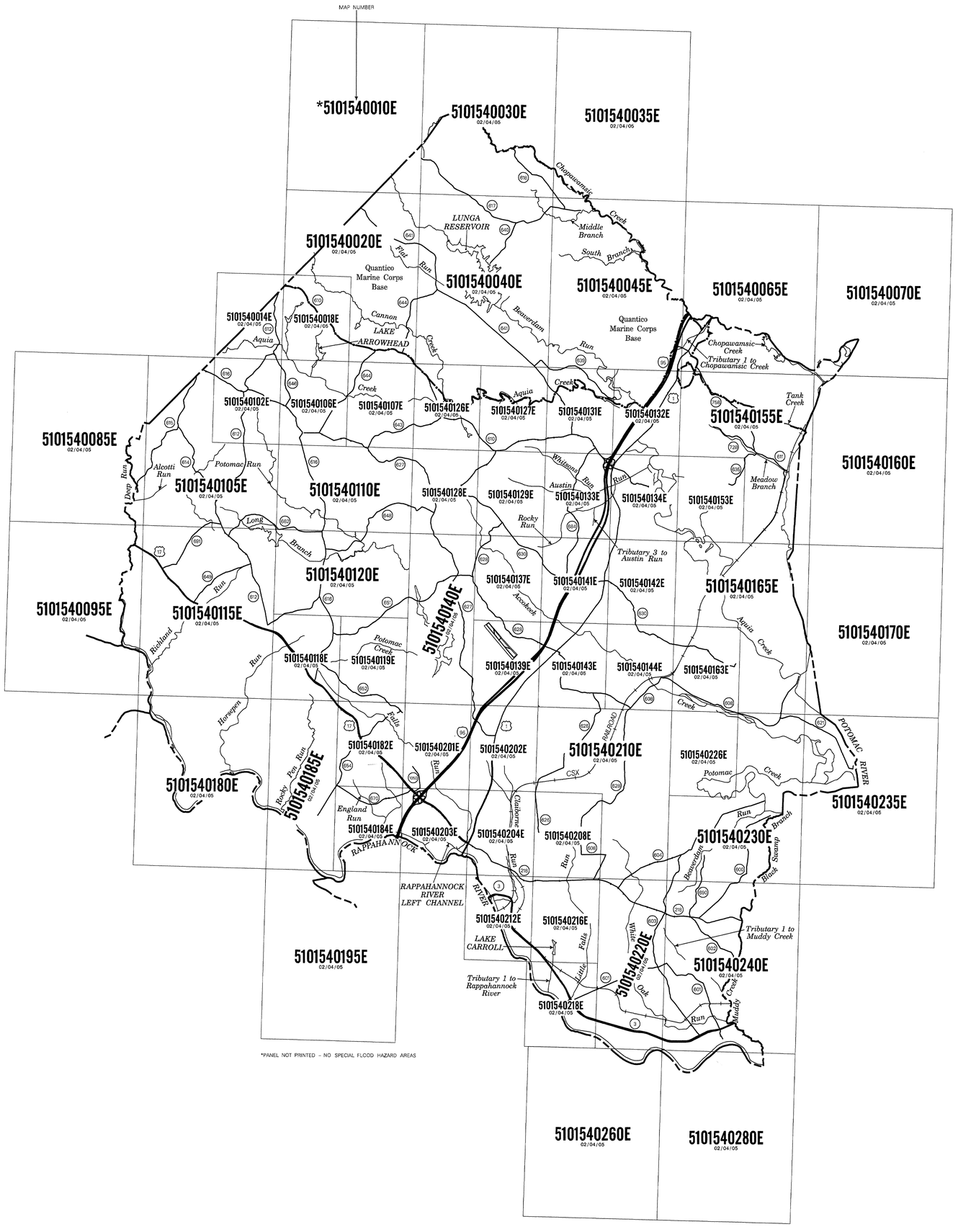
MAP INDEX

PANELS PRINTED: 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 375

COMMUNITY - PANEL NUMBERS
510308 0025 - 0375

MAP REVISED:
FEBRUARY 18, 1998

Federal Emergency Management Agency



*PANEL NOT PRINTED – NO SPECIAL FLOOD HAZARD AREAS

MAP REPOSITORY

(Maps available for reference only, not for disttribution.)

Stafford County Administration Center
Department of Code Administration
1300 Courthouse Road
Stafford, Virginia 22555–0339

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

MAP INDEX

FIRM
FLOOD INSURANCE RATE MAP

STAFFORD COUNTY, VIRGINIA

MAP INDEX

PANELS PRINTED: 14, 18, 20, 30, 35, 40, 45, 65, 70, 85, 95, 102, 105, 106, 107, 110, 115, 118, 119, 120, 126, 127, 128, 129, 131, 132, 133, 134, 137, 139, 140, 141, 142, 143, 144, 153, 155, 160, 163, 165, 170, 180, 182, 184, 185, 195, 201, 202, 203, 204, 208, 210, 212, 216, 218, 220, 226, 230, 235, 240, 260, 280

MAP NUMBER
5101541NDOA

MAP REVISED
FEBRUARY 4, 2005

Federal Emergency Management Agency